[0074] CLAIMS

What is claimed is:

1. A method comprising, when a substantially rectangular target screen is proportionately wider and has a different aspect ratio than a substantially rectangular original screen that has a resizing point along a horizontal axis thereof such that a perpendicular line there from intersects an original graphic data object thereon:

proportionally increasing the size of the original graphic data object to obtain a target graphic data object on the target screen; and

adding a stretch distance to the width of the target graphic data object on the target screen.

2. The method as defined in Claim 1, wherein the proportionally increasing the size of the original graphic data object comprises proportionally increasing the size of the original graphic data object by a height ratio of the target screen height to the original screen height to obtain a target graphic data object on the target screen.

3. The method as defined in Claim 1, wherein the stretch distance is calculated by subtracting the product of the height ratio and the width of the original screen from the width of the target screen.

4. The method as defined in Claim 1, wherein the proportionally increasing the size of the original graphic data object comprises proportionally increasing the size of the

original graphic data object by a width ratio of the target screen width to the original screen width to obtain a target graphic data object on the target screen.

5. The method as defined in Claim 4, wherein the stretch distance is calculated by subtracting the product of the width ratio and the height of the original screen from the height of the target screen.

6. The method as defined in Claim 1, further comprising:

increasing the size of the target graphic data object on the target screen by rounding up to an integer value the coordinates of the target graphic data object on the target screen; and

outputting a display that includes the target graphic data object on the target screen.

7. A computer readable media having computer-readable instructions thereon which, when executed by a computer, implement the method of Claim 1.

8. A method comprising, when a substantially rectangular target screen is proportionately wider and has a different aspect ratio than a substantially rectangular original screen that has a resizing point along an x axis thereof such that a perpendicular line there from intersects a substantially rectangular original graphic data object thereon:

multiplying each of the height, width, distance from the top edge, and distance from the left edge of the original graphic data object by a height ratio of the target screen height to the original screen height to obtain a target graphic data object on the target screen; and

adding a stretch distance to the width of the target graphic data object on the target screen that is calculated by subtracting the product of the height ratio and the width of the original screen from the width of the target screen.

9. The method as defined in Claim 8, wherein:

the original screen includes another said original graphic data object having a right edge to the left of the perpendicular line; and

the method further comprises multiplying each of the height, width, distance from the top edge, and distance from the left edge of the another said original graphic data object by a height ratio of the target screen height to the original screen height to obtain an another said target graphic data object on the target screen.

10. The method as defined in Claim 8, wherein:

the original screen includes another said original graphic data object having a left edge to the left of the perpendicular line; and

the method further comprises:

multiplying each of the height, width, distance from the top edge, and distance from the left edge of the another said original graphic data object by a height ratio of the target screen height to the original screen height to obtain an another said target graphic data object on the target screen; and

adding the stretch distance to the width of the another said target graphic data object on the target screen.

11. The method as defined in Claim 8, wherein the original and target screens each have opposing top and bottom edges with a respective height there between and opposing left and right edges with a respective width there between.

12. The method as defined in Claim 8, wherein the original graphic data object on the original screen is designated as being disproportionately resizable.

13. The method as defined in Claim 8, wherein the original graphic data object has opposing top and bottom edges with a respective height there between each being respectively parallel to and having a respective distance from the opposing top and bottom edges of the original screen.

14. The method as defined in Claim 8, wherein the original graphic data object has opposing left and right edges with a respective width there between each being respectively parallel to and having a respective distance from the opposing left and right edges of the original screen.

15. A method according to Claim 8, further comprising:

obtaining graphic characteristics for and text attached to the original graphic data object on the original screen;

reformatting the attached text to correspond to the target graphic data object on the target screen; and

applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen.

16. A method according to Claim 15, wherein the repositioning further comprises maintaining the attached text within the opposing top and bottom edges and the opposing left and right edges of the target graphic data object on the target screen.

17. A method according to Claim 15, wherein the obtaining graphic characteristics further comprises obtaining a fill pattern.

18. A method according to Claim 15, wherein the obtaining graphic characteristics further comprises obtaining a color designation.

19. A method according to Claim 15, wherein the obtaining graphic characteristics further comprises obtaining a border style of the original graphic data object on the original screen.

20. The method as defined in Claim 8, further comprising:

increasing the size of the target graphic data object on the target screen by rounding to an integer value the coordinates of the target graphic data object on the target screen; and

outputting a display that includes the target graphic data object on the target screen.

21. A computer readable media having computer-readable instructions thereon which, when executed by a computer, implement the method of Claim 8.

22. A method comprising, when a substantially rectangular target screen is proportionately higher and has a different aspect ratio than a substantially rectangular original screen that has a resizing point along a y axis thereof such that a perpendicular line there from intersects an original graphic data object thereon:

proportionally increasing the size of the original graphic data object to obtain a target graphic data object on the target screen; and

adding a stretch distance to the height of the target graphic data object on the target screen.

23. The method as defined in Claim 22, wherein the proportionally increasing the size of the original graphic data object comprises proportionally increasing the size of the original graphic data object by a width ratio of the target screen width to the original screen width to obtain a target graphic data object on the target screen.

24. The method as defined in Claim 23, wherein the stretch distance is calculated by subtracting the product of the width ratio and the height of the original screen from the height of the target screen.

25. The method as defined in Claim 23, further comprising:

increasing the size of the target graphic data object on the target screen by rounding to an integer value the coordinates of the target graphic data object on the target screen; and

outputting a display that includes the target graphic data object on the target screen.

26. A computer readable media having computer-readable instructions thereon which, when executed by a computer, implement the method of Claim 23.

27. A method comprising, when a substantially rectangular target screen is proportionately higher and has a different aspect ratio than a substantially rectangular original screen that has a resizing point along a y axis thereof such that a perpendicular line there from intersects a substantially rectangular original graphic data object thereon:

multiplying each of the height, width, distance from the top edge, and distance from the left edge of the original graphic data object by a width ratio of the target screen width to the original screen width to obtain a target graphic data object on the target screen; and

adding a stretch distance to the height of the target graphic data object on the target screen that is calculated by subtracting the product of the width ratio and the height of the original screen from the height of the target screen.

28. The method as defined in Claim 27, wherein:

the original screen includes another said original graphic data object having a top edge above of the perpendicular line; and

the method further comprises multiplying each of the height, width, distance from the top edge, and distance from the left edge of the another said original graphic data object by a width ratio of the target screen width to the original screen width to obtain an another said target graphic data object on the target screen.

29. The method as defined in Claim 27, wherein:

the original screen includes another said original graphic data object having a top edge below the perpendicular line; and

the method further comprises:

multiplying each of the height, width, distance from the top edge, and distance from the left edge of the another said original graphic data object by a width ratio of the target screen width to the original screen width to obtain an another said target graphic data object on the target screen; and

adding the stretch distance to the height of the another said target graphic data object on the target screen.

30. The method as defined in Claim 27, wherein:

the original and target screens each have opposing top and bottom edges with a respective height there between and opposing left and right edges with a respective width there between.

31. The method as defined in Claim 27, wherein:

the original graphic data object on the original screen is designated as being disproportionately resizable.

32. The method as defined in Claim 27, wherein:

the original graphic data object has opposing top and bottom edges with a respective height there between each being respectively parallel to and having a respective distance from the opposing top and bottom edges of the original screen.

33. The method as defined in Claim 27, wherein:

the original graphic data object has opposing left and right edges with a respective width there between each being respectively parallel to and having a respective distance from the opposing left and right edges of the original screen.

34. A method according to Claim 27, further comprising:

obtaining graphic characteristics for and text attached to the original graphic data object on the original screen;

reformatting the attached text to correspond to the target graphic data object on the target screen; and

applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen.

35. A method according to Claim 34, wherein the repositioning further comprises maintaining the attached text within the opposing top and bottom edges and within the opposing left and right edges of the target graphic data object on the target screen.

36. A method according to Claim 34, wherein the obtaining graphic characteristics further comprises obtaining a fill pattern.

37. A method according to Claim 34, wherein the obtaining graphic characteristics further comprises obtaining a color designation.

38. A method according to Claim 34, wherein the obtaining graphic characteristics further comprises obtaining a border style of the original graphic data object on the original screen.

39. The method as defined in Claim 27, further comprising:

increasing the size of the target graphic data object on the target screen by rounding to an integer value the coordinates of the target graphic data object on the target screen; and

outputting a display that includes the target graphic data object on the target screen.

40. A computer readable media having computer-readable instructions thereon which, when executed by a computer, implement the method of Claim 27.

41. A computer readable media comprising computer-readable instructions which, when executed by a computer, performs steps that include:

when an original screen is to be transformed into a target screen of a different aspect ratio, wherein:

the original and target screens each have opposing top and bottom edges with a respective height there between and opposing left and right edges with a respective width there between;

an original graphic data object on the original screen is designated as being disproportionately resizable;

the original graphic data object has opposing top and bottom edges with a respective height there between each being respectively parallel to and having a

respective distance from the opposing top and bottom edges of the original screen; and

the original graphic data object has opposing left and right edges with a respective width there between each being respectively parallel to and having a respective distance from the opposing left and right edges of the original screen;

when the target screen is proportionately wider than the original screen and a resizing point is along a x axis of the original screen such that a perpendicular line there from intersects the original graphic data object:

multiplying each of the height, width, distance from the top edge, and distance from the left edge of the original graphic data object by a height ratio of the target screen height to the original screen height to obtain a target graphic data object on the target screen;

calculating a stretch distance by subtracting the product of the height ratio and the width of the original screen from the width of the target screen; and

adding the stretch distance to the width of the target graphic data object on the target screen;

when the target screen is proportionately higher than the original screen and a resizing point is along a y axis of the original screen such that the perpendicular line intersects the original graphic data object:

multiplying each of the height, width, distance from the top edge, and distance from the left edge of the original graphic data object by a width ratio of the target screen width to the original screen width to obtain a target graphic data object on the target screen;

calculating a stretch distance by subtracting the product of the width ratio and the height of the original screen from the height of the target screen; and

adding the stretch distance to the height of the target graphic data object on the target screen.

42. The computer readable media according to Claim 41, further comprising:

obtaining graphic characteristics for and text attached to the original graphic data object on the original screen;

reformatting the attached text to correspond to the target graphic data object on the target screen; and

applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen.

43. The computer readable media according to Claim 42, wherein the repositioning further comprises maintaining the attached text within the opposing top and bottom edges and within the opposing left and right edges of the target graphic data object on the target screen.

44. The computer readable media according to Claim 42, wherein the obtaining graphic characteristics further comprises obtaining a fill pattern.

45. The computer readable media according to Claim 42, wherein the obtaining graphic characteristics further comprises obtaining a color designation.

46. The computer readable media according to Claim 42, wherein the obtaining graphic characteristics further comprises obtaining a border style of the original graphic data object on the original screen.

47. The computer readable media as defined in Claim 41, further comprising:

increasing the size of the target graphic data object on the target screen by rounding to an integer value the coordinates of the target graphic data object on the target screen; and

outputting a display that includes the target graphic data object on the target screen.

48. A computer readable media comprising computer-readable instructions which, when executed by a computer, performs steps that include:

determining that:

an original screen is to be transformed into a target screen of a different aspect ratio, wherein the original and target screens each have opposing top and bottom edges with a respective height there between and opposing left and right edges with a respective width there between;

a resizing point is defined on the original screen; and

a line perpendicular to one said edge of the original screen intersects:

the resizing point; and

one or more said original points on an original graphic data object having a plurality of said original points each having respective distances from the opposing top and bottom edges and from the opposing left and right edges, wherein the original graphic data object on the original screen is designated as being disproportionately resizable;

when the target screen is proportionately wider than the original screen and the resizing point is along a x axis of the original screen:

multiplying each selected original point of the original graphic data object by a height ratio of the target screen height to the original screen height to obtain, respectively, a respective target graphic data object point;

calculating a stretch distance by subtracting the product of the height ratio and the width of the original screen from the width of the target screen;

for each original point that is to the right of a line perpendicular to the x axis at the resizing point, adding the stretch distance to the distance of the corresponding target point from the left edge of the target screen; and

for each original point that intersects a line perpendicular to the x axis at the resizing point, transforming the corresponding target point into line perpendicular to the perpendicular line and having the distance of the stretch distance;

when the target screen is proportionately higher than the original screen and the resizing point is along a y axis of the original screen:

multiplying each original point of the original graphic data object by a width ratio of the target screen width to the original screen width to obtain, respectively, a respective target graphic data object point;

calculating a stretch distance by subtracting the product of the width ratio and the height of the original screen from the height of the target screen;

for each original point that is to the below a line perpendicular to the y axis at the resizing point, adding the stretch distance to the distance of the corresponding target point from the top edge of the target screen; and

for each original point that intersects a line perpendicular to the y axis at the resizing point, transforming the corresponding target point into line parallel to the opposing left and right edges of the target screen and having the distance of the stretch distance;

forming a target graphic data object on the target screen from the target points.

49. The computer readable media according to Claim 48, wherein the forming a target graphic data object on the target screen from the target points further comprises:

obtaining graphic characteristics for and text attached to the original graphic data object on the original screen;

reformatting the attached text to correspond to the target graphic data object on the target screen; and

applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen.

50. The computer readable media according to Claim 49, wherein the repositioning further comprises maintaining the attached text within the opposing top and bottom edges and the opposing left and right edges of the target graphic data object on the target screen.

51. The computer readable media according to Claim 49, wherein the obtaining graphic characteristics further comprises obtaining a fill pattern.

52. The computer readable media according to Claim 49, wherein the obtaining graphic characteristics further comprises obtaining a color designation.

53. The computer readable media according to Claim 49, wherein the obtaining graphic characteristics further comprises obtaining a border style of the original graphic data object on the original screen.

54. The computer readable media as defined in Claim 48, further comprising:

increasing the size of the target graphic data object on the target screen by rounding to an integer value the coordinates of the target graphic data object on the target screen; and

outputting a display that includes the target graphic data object on the target screen.

55. A computer graphics system for adjusting an original graphic data object in a substantially rectangular original screen to obtain a target graphic data object on a substantially rectangular target screen having a different aspect ratio than that of the original screen, the computer graphics system comprising:

means for proportionally increasing the size of the original graphic data object to obtain the target graphic data object on the target screen; and

means for non-proportionally increasing the size of the target graphic data object on the target screen by the addition of a stretch distance thereto where a line projecting from a resizing point on and perpendicular to an edge of the original screen intersects the original graphic data object.

56. The computer graphics system as defined in Claim 55, wherein the stretch distance is added to either the width or the height of the target graphic data object on the target screen.

57. The computer graphics system as defined in Claim 55, wherein the substantially rectangular target screen is proportionately wider and has a different aspect ratio than a substantially rectangular original screen that has a resizing point on a x axis thereof such that a perpendicular line there from intersects an original graphic data object thereon:

proportionally increasing the size of the original graphic data object to obtain a target graphic data object on the target screen; and

adding a stretch distance to the width of the target graphic data object on the target screen.

58. The computer graphics system as defined in Claim 55, wherein the substantially rectangular target screen is proportionately higher and has a different aspect ratio than a substantially rectangular original screen that has a resizing point on the left edge thereof such that a perpendicular line there from intersects an original graphic data object thereon:

proportionally increasing the size of the original graphic data object to obtain a target graphic data object on the target screen; and

adding a stretch distance to the height of the target graphic data object on the target screen.

59. The computer graphics system as defined in Claim 55, further comprising:

means for obtaining graphic characteristics for and text attached to the original graphic data object on the original screen;

means for reformatting the attached text to correspond to the target graphic data object on the target screen;

means for applying the graphic characteristics for the original graphic data object on the original screen to the target graphic data object on the target screen; and

means for displaying the target graphic data object on the target screen.

60. The computer graphics system as defined in Claim 55, wherein the means for reformatting further comprises means for maintaining the attached text within opposing top and bottom edges and opposing left and right edges of the target graphic data object on the target screen.

61. The computer graphics system as defined in Claim 55, further comprising means for increasing the size of the target graphic data object on the target screen by rounding to an integer value the coordinates of the target graphic data object on the target screen.